

tions of which it may well be proud: the Library of the Medical School of the University of California, the Lane Medical Library of Stanford University, and the Barlow Medical Library of the Los Angeles County Medical Association. In addition, the San Francisco, Alameda, San Diego and Riverside County Medical Societies also maintain libraries available for certain local needs.

Attention of members of the California Medical Association is called to the three larger libraries first mentioned because these institutions are willing to be of service to members of the medical profession throughout the State. Communications addressed to them, on specified topics relating to packet service, will receive careful consideration, and librarians will be happy to send available literature from their reserve shelves.

The University of California Library is supported by state taxation and has taken over the work of the State Medical Library, the San Francisco and Los Angeles Branches of which were forced to suspend on July, 1939, when appropriations were no longer obtainable. Lane Medical Library, of Stanford University Medical School, and the Barlow Medical Library, of the Los Angeles County Medical Association, for a number of years have received annual donations from the California Medical Association, and, in return, have been glad to extend their facilities for packet library service to physicians who do not reside in their cities. For convenience in correspondence, therefore, their addresses are here given, and every Association member is invited to avail himself of the exceptional opportunities referred to:

University of California Medical Library, Medical Center, San Francisco, (telephone, MOntrorse 3600.)

Lane Medical Library (Stanford Medical School), 2398 Sacramento Street, San Francisco, (telephone, WESt 8000).

Barlow Medical Library (Los Angeles County Medical Association), 634 South Westlake, Los Angeles, (telephone, FIItzroy 7694).

#### ACHILLES HEEL OF AMERICAN MEDICINE

**"National Physicians' Committee for the Extension of Medical Service."**—Concerning the "National Physicians' Committee for the Extension of Medical Service"\* and its laudable objectives, discussion will be made in a future issue. Here and now, attention is called to the caption of these comments, "Achilles Heel of American Medicine," because that is the title of a reprint article appearing on page 360 in the current number of CALIFORNIA AND WESTERN MEDICINE.

The OFFICIAL JOURNAL has only rarely broken its self-imposed rule not to give place, in the original articles department, to reprinted topics. However, since circumstances alter cases, and because the medical profession of California has had some very illuminating experiences in recent years regarding attempts to institute governmental direc-

tion in medical practice, it seems desirable to give special place to the "Achilles Heel" article, in the hope that every member of the California Medical Association will take the time to read the important pronouncements contained therein, which are so forcibly and pungently stated.

The article was distributed in Chicago at the annual meeting of State Medical Association Secretaries and Editors, and bore on the front cover the following introduction:

A brief statement of the problem and a short outline of the steps that are being taken to offset the destructive processes which are undermining the profession and the industry.

While on the inside cover were these stimulating paragraphs:

The men now in medicine will determine what its future is to be.

A new factor is involved.

Propaganda coming into widespread use has adversely affected the status of the physician, and altered the viewpoint and the attitude of the patient.

The degree of independence, the relative place, and the quality of service of American Medicine for the future will be determined by the intelligence and vigor with which the physician faces—and deals with—this new problem.

The above should be additional incentive for perusal of the text of "The Achilles Heel of American Medicine," which, as before stated, appears on page 360 of this issue.\*

**Other State Association and Component County Society News.**—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 394.

## EDITORIAL COMMENT†

### CARCINOGENIC VIRUS IN TAR SARCOMA

Demonstration by McIntosh and Selbie<sup>1</sup> of Middlesex Hospital, England, of a carcinogenic virus in chemically induced sarcoma in fowls, coupled with Parson's<sup>2</sup> previous demonstration of a similar filterable virus in tar leukemia and sarcoma of mice, may necessitate revisions of current theories as to the etiology of chemically induced malignant disease.

The presence of atypical antigens in tar sarcoma was first deduced by Andrewes,<sup>3</sup> from serologic evidence. He found that a tar sarcoma of fowls would grow for a time if transplanted into adult pheasants. All pheasants thus serving as hosts for the malignant fowl tissues developed antibodies that would neutralize the virus of Rous sarcoma.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

\* See also article, "The Platform of the American Medical Association," on page 394.

<sup>1</sup> McIntosh, James, and Selbie, F. R.: Brit. J. Exper. Path., 20:49 (Feb.), 1939.

<sup>2</sup> Parsons, L. Dorothy: J. Path. and Bact., 43:1, 1936.

<sup>3</sup> Andrewes, C. H.: Ibid., 43:23, 1936.

\* Office of the National Physicians' Committee: Suite 207, at 700 North Michigan Avenue, Chicago, Illinois, John M. Pratt, executive administrator.

Such antibodies were never found in normal pheasants, nor in pheasants immunized against normal fowl tissues. Andrewes would explain this heterophile reaction by the assumption that tar sarcoma of fowls contain a carcinogenic virus similar to that of Rous sarcoma, even though this virus cannot be demonstrated by filtration methods.

In later tests of this theory, McIntosh and Selbie found nine tar-induced sarcoma of fowls in which a carcinogenic virus was present in effective concentration in Berkefeld filtrates. These five tar tumors could be propagated indefinitely in normal chickens by serial inoculation with filtered tumor extracts. They concluded that these five tar-induced sarcomas were, in reality, virus tumors, the tar merely serving as the initial potentiating or synergic agent, "playing no part in the maintenance of the subsequent malignant process."

The possibility that the alleged "virus" is nothing more than an autocatalytic colloid formed by tar denaturation of normal fowl cytoplasm, is now under investigation in their laboratory. There is no reason to believe that the virus is necessarily a preformed environmental factor. A partially denatured or atypically polymerized cytoplasmic colloid—a giant molecule which multiplies or is multiplied in symbiosis with altered tissue cells—is in line with the newest theories of cytology and colloidal chemistry.<sup>4</sup> Study of this presumptive denatured or synthesized colloid in chemically induced sarcoma, therefore, promises results of basic scientific interest as well as numerous practical applications.

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#### ACTINIC KERATOSIS OF THE LEFT FOREARM DUE TO DRIVING AN AUTOMOBILE

Keratosis are small, dry, hard, rough crusts apt to occur on the dry, hard skin of elderly people. Exposure to the weather, and especially to light rich in actinic rays, are among the chief causes of their occurrence. The great interest of these lesions consists in their tendency to degenerate into cancer. In the present instance the mode of exposure to light is the main feature.

A woman sixty-nine years of age, of fair complexion and in excellent health, consulted me for two keratoses on the extensor surface of the left forearm. One of these was heavily crusted and quite large, about pea-sized, and the other had appeared more recently and was much smaller. On curetting, the large one left a fairly deep depression, but only in the epithelial layer of the skin. In other words, it had extended into the rete malpighii, but no farther.

It struck me as peculiar that she should not show more evidence of similar trouble on the surfaces more usually affected, such as the face, the dorsae of the hands, or even the "V" at the front of the

neck so frequently exposed by women. The skin of the rest of the affected forearm was normal, except for being somewhat more pigmented than its fellow.

While reflecting on this the patient happened to remark that, because of an invalid sister, she drove her automobile a great deal. Instantly it struck me, as the patient was from the country, that this meant exposure of the left forearm to the sunlight, and she then admitted that it was so exposed, frequently and lengthily.

The patient had the fair skin of the tribes about the North Sea, whence she was descended. These people are poorly supplied with cutaneous pigment, and therefore peculiarly sensitive to the actinic rays of light. Besides that, she was living in latitude 37.5, which is that of Seville in the south of Spain, under a sun much richer in actinic rays than that to which she was racially adapted. Consequently, we had before us a forearm exposed day after day, and prolongedly, to a stronger sun than she was normally fitted to withstand.

The question then arose as to what measures should be taken to obviate this dangerous situation.

It is so comfortable while driving an automobile to rest the left forearm on the sill of the window that it would be "preaching in the desert" to advise against it, and I have no desire to emulate John the Baptist in this respect. A man usually has his arm covered by his shirt or coat sleeve, though this is not always the case, as many, especially youths, now go with bare arms. A woman, however, usually has her forearm uncovered.

So our patient was advised that in the future she should cover her left forearm while driving her automobile. Even a light sleeve is all that is required, and if this is of red or yellow material it will be all the more protective.

As for the color, anyone who does any photography knows that changing the plates is done under a red light, thoroughly shutting off the actinic rays, which would otherwise strike the plates. Also our farmers, in the not long ago, were subconsciously aware of the comfort afforded the neck by wearing red bandana handkerchiefs. Many of them even wore red shirts in summer.

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Two principles govern the moral and intellectual world. One is perpetual progress, the other the necessary limitations to that progress. If the former alone prevailed, there would be nothing steadfast and durable on earth, and the whole of social life would be the sport of winds and waves. If the latter had exclusive sway, or even if it obtained a mischievous preponderancy, everything would petrify or rot. The best ages of the world are those in which these two principles are the most equally balanced. In such ages every enlightened man ought to adopt both principles, and with one hand develop what he can, with the other restrain and uphold what he ought.—Gentz.

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So closely related are the stomach and the heart that they are frequently confused when trouble in one or the other arrives.

<sup>4</sup> Bernal, J. D., et al.: Symposium on the Cell and Cytoplasm, Stanford University, California, June 30 to July 5, 1939. (To be published.)